

With concern growing for the environment, users of traffic signalling equipment are increasingly focused on opportunities to reduce power consumption, as well as ensuring supplier offerings are as environmentally friendly as possible.

The Siemens LED retrofit concept provides real opportunities for significant carbon footprint reductions as well as minimising waste, contributing to a more sustainable solution.

There are thousands of traffic signals installed, but the majority of these are still fitted with traditional incandescent signal lamps. As well as consuming large amounts of power, the need to regularly replace these lamps has a significant carbon impact, both in the manufacture of the lamps and the vehicle miles travelled.

The Siemens retrofit option enables existing installed signals to be upgraded to the latest CLS LED technology, offering:

- Very low power (average 9W)
- Excellent optical performance utilising the SIRA lens style
- Easy installation
- Low environmental impact
- Full lamp monitoring compatibility with ST700, ST750, ST800 and ST900 controllers.

#### Environmental savings

Consuming only an average of 9W across a typical dim/bright cycle, the replacement of incandescent lamps with the latest LED retrofit modules offer power and carbon savings of over 75%.

The retrofit is achieved by simply replacing each existing signal head door and incandescent optical assembly with a new LED door and upgrading the controller. This ensures that existing investment in the majority of the installed signal is retained, minimising waste and disposal issues, which further enhances the carbon savings achieved by the retrofit option.

Thanks to the continued use of the well proven SIRA lens, and despite their low power, the optical performance of the signals is excellent, offering both high brightness and outstanding phantom performance. Simple installation



- Low environmental impact
- Retains existing infrastructure investment
- Fits any existing Helios or Peek Elite traffic signal body
- Compatible with the ST700, ST750, ST800 and ST900
- Simple installation

## LED retrofit

### Lamp monitoring compatibility

Lamp monitoring is an essential feature required in many controller installations, and the Siemens LED retrofit solution ensures that full lamp monitoring and red lamp monitoring is available. This is achieved by the use of newly designed LED CLS modules, interfacing to enhanced lamp switch cards and new firmware, which are fitted to the controller as part of the retrofit process.

Although new firmware is required, in most instances it is not necessary to reconfigure ST800 and ST900 controllers, further enhancing the cost-effective nature of the retrofit option.

For ST700 and ST750 pedestrian controllers, any handset altered configuration data must be re-entered but this is usually a quick and simple task.

### New installations

For new installations, Helios signal heads are available already fitted with the latest LED CLS modules. These are fully compatible with the latest ST900 LED controller which comes supplied with the necessary enhanced lamp switch cards and firmware.

### Technical specification

#### Signal heads (LV)

##### Operating voltage/dimming:

- Bright mode: 200V to 264V AC RMS
- Dim mode: 120V to 180V AC RMS
- Frequency: 48Hz to 64Hz

##### Typical power consumption:

- Bright mode: 13W
- Dim mode: 5W

##### Compatible types

- Helios
- Peek Elite

##### Upgrade aspect types:

- RAG
- Far-sided pedestrian red/green man
- Green arrow
- Other aspect types available on request

#### Controllers

##### Compatible controllers:

- ST700, ST750, ST800 and ST900 (via upgrade of lamp switch cards and firmware)
- ST750 LED and ST900 LED

#### Lamp monitoring

- Lamp failure monitoring of all Retrofit aspects
- Red lamp monitoring of all Retrofit vehicle red aspects
- Meets the requirements of TR2210/TR2500



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